REPLY TO FINAL OFFICE ACTION OF 04 JANUARY 2007
Serial Number: 10/550,970
Filing Date: 26 September 2005
Title: Distributed Speech Recognition System

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Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the subject application.

Listing of Claims:

1. (Currently Amended)   A distributed speech recognition system comprising at least one user terminal and at least one server suitable for communication with one another via a telecommunications network, wherein the user terminal comprises:

- means for obtaining an audio signal to be recognized;

- first audio signal modeling parameter calculation means; and

- first control means for selecting at least one signal to be transmitted to the server, from the audio signal to be recognized and a signal indicating the calculated modeling parameters.

and wherein the server comprises:

- means for receiving the selected signal originating from the user terminal;

- second input signal modeling parameter ~~parameter~~ calculation means;

- recognition means for associating at least one stored form with input parameters; and

- second control means for controlling the second calculation means and the recognition means in order,

 • if the selected signal received by the reception means is an audio signal, to activate the second parameter calculation means by addressing the selected signal to them as an input signal, and to address the parameters calculated by the second calculation means to the recognition means as input parameters, and

 • if the selected signal received by the reception means indicates modeling parameters, to address said indicated parameters to the recognition means as input parameters.

2. (Original)   The system as claimed in claim 1, wherein the means for obtaining the audio signal to be recognized comprise voice activation detection means to produce the signal to be recognized in the form of extracts of an original audio signal, outside speech segment of voice inactivity periods.

3. (Original)   The system as claimed in claim 2, wherein the first control means are adapted to select the signal to be transmitted to the server from at least the original audio signal, the audio signal to be recognized in the form of segments extracted by the voice activation detection means and the signal indicating modeling parameters calculated by the first parameter calculation means.

4. (Previously Presented) The system as claimed in claim 1, wherein:
-   the server furthermore comprises voice activation detection means for extracting speech segments from an audio signal outside voice inactivity periods; and
-   the second control means are adapted to control the second calculation means and the recognition means if the selected signal received by the reception means is an audio signal, in order,

if the audio signal represents speech segments following voice activation detection, to activate the second parameter calculation means by addressing the selected signal to them as an input signal, then to address the parameters calculated by the second parameter calculation means to the recognition means as input parameters;

if not, to activate the voice activation detection means of the server by addressing the received signal to them as an input signal, then to address the segments extracted by the second voice activation detection means to the second parameter calculation means as input signal, then to address the parameters calculated by the second parameter calculation means to the recognition means as input parameters.

5. (Previously Presented)   The system as claimed in claim 1, wherein the user terminal furthermore comprises recognition means in order to associate at least one stored form with the modeling parameters calculated by the first calculation means.

6. (Original)   The system as claimed in claim 5, wherein the first control means are adapted to select the signal to be transmitted to the server according to the result supplied by the terminal recognition means.

7. (Previously Presented)   The system as claimed in claims 5, wherein the user terminal furthermore comprises storage means adapted to store the audio signal to be recognized or the modeling parameters calculated by the first parameter calculation means.

8. (Original)   The system as claimed in claim 5, wherein the first control means are adapted to select a signal to be transmitted to the server independently of the result supplied by the recognition means of the terminal.

9. (Previously Presented) A user terminal in a distributed speech recognition system comprising one server suitable for communication with said user terminal, said user terminal comprising:
-   means for obtaining an audio signal to be recognized;
-   audio signal modeling parameter calculation means; and
-   first control means for selecting at least one signal to be transmitted to a server, from the audio signal to be recognized and a signal indicating calculated modeling parameters.

10. (Original) The user terminal as claimed in claim 9, wherein at least part of the parameter calculation means is downloaded from the server.

11. (Previously Presented)   The terminal as claimed in claim 9, furthermore comprising recognition means to associate at least one stored form with the modeling parameters.

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12. (Original) The user terminal as claimed in claim 11, wherein at least part of the recognition means is downloaded from the server.

13. (Previously Presented) A server in a distributed speech recognition system comprising at least one user terminal adapted for communication with said server, said server comprising:

-   means for receiving, from a user terminal, a signal selected at said terminal;
-   input signal modeling parameter calculation means;
-   recognition means for associating at least one stored form with input parameters; and
-   control means for controlling the second calculation means and the recognition means, in order,

if the selected signal received by the reception means is an audio signal, to activate the parameter calculation means by addressing the selected signal to them as an input signal, and to address the parameters calculated by the calculation means to the recognition means as input parameters, and

if the selected signal received by the reception means indicates modeling parameters, to address said indicated parameters to the recognition means as input parameters.

14. (Currently Amended) The server as claimed in ~~claim 13~~ claim 15, comprising means for downloading voice recognition software resources via the telecommunications network to a terminal, the software resources including at least part of the first parameter calculation means or recognition means of the terminal.

15. (Currently amended) The server as claimed in ~~claim 14~~ claim 13, comprising means for downloading voice recognition software resources via the telecommunications network to a terminal.

16 (Original) The server as claimed in claim 15, wherein said resources comprise at least one module from: a VAD module, an audio signal modeling parameter calculation module and a recognition module for associating at least one stored form with modeling parameters.